

20011020.qrp v02_n348.qrl.20011020

Date: Sat, 20 Oct 2001 19:03:11 EDT
From: qrp-l@Lehigh.EDU
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: QRP-L digest 2348

QRP-L Digest 2348

Topics covered in this issue include:

- 1) [109090] 20m open
by GaryMF@aol.com
- 2) [109091] Re: Return Loss Bridge
by wb2vuo@juno.com
- 3) [109092] Re: Is Gary Diana okay?
by "Howard Kraus" <K2UD@adelphia.net>
- 4) [109093] Information Needed
by "Brice D. Hornback" <bdh@cyberbound.net>
- 5) [109094] Klog
by "Pastor-KC1DI" <elbc@pivot.net>
- 6) [109095] Re: Is Gary Diana okay?
by Al Scanandoah <k2zn@rochester.rr.com>
- 7) [109096] Re: Return Loss Bridge
by "Ian C. Purdie VK2TIP" <ianpurdie@integritynet.com.au>
- 8) [109097] Last Minute Reminder: 8PM PST Tonight!!
by "N7SG K7FD" <k7fd@hotmail.com>
- 9) [109098] FT-817/OTT/Z11 Installation
by John Zaruba Jr <jzaruba@snip.net>
- 10) [109099] Make that DAYLIGHT time, hi!
by "N7SG K7FD" <k7fd@hotmail.com>
- 11) [109100] Receiver design (home brew) recommendation?
by Lourette <lourette@localnet.com>
- 12) [109101] Re: Make that DAYLIGHT time, hi!
by "N7SG K7FD" <k7fd@hotmail.com>
- 13) [109102] RE: FT-817 Ref Oscillator Fix
by Fairbairn Bob-C12509 <Bob.Fairbairn@motorola.com>
- 14) [109103] DX with Mediocre Antenna
by Steve Yates - AA5TB <aa5tb@arrl.net>
- 15) [109104] Re: Receiver design (home brew) recommendation?
by Steve Yates - AA5TB <aa5tb@arrl.net>
- 16) [109105] Magnets and pics
by "Mike Duke, K5XU" <mikeduke@netdoor.com>
- 17) [109106] Tiny Tornado Questions
by "Mike Duke, K5XU" <mikeduke@netdoor.com>
- 18) [109107] Re: Magnets and pics
by "ZOOM" <kandrparker@sympatico.ca>
- 19) [109108] Re: Magnets and pics

by "Leon Heller" <leon_heller@hotmail.com>
20) [109109] Contest- PAC @ K4FB
by Paul Womble <pwomble1@tampabay.rr.com>
21) [109110] PAC-guys ?? (LOG)
by "ss lyon" <sslyon@megalink.net>
22) [109111] Re: PAC-guys ?? (LOG)
by "N7SG K7FD" <k7fd@hotmail.com>
23) [109112] New-> 4-Band Module for the Elecraft K1 Transceiver
by Eric Swartz WA6HHQ - Elecraft <eric@elecraft.com>
24) [109113] FS: KFL1 40/20m
by "N7SG K7FD" <k7fd@hotmail.com>
25) [109114] Re: PAC-guys ?? (LOG)
by "Rod N0RC" <rod@n0rc.com>
26) [109115] Re: Tiny Tornado Questions
by "Brice D. Hornback" <bdh@cyberbound.net>
27) [109116] Re: Tiny Tornado Questions
by "Brice D. Hornback" <bdh@cyberbound.net>
28) [109117] FS: MFJ 941E 300w Antenna tuner
by "NZ8J" <timcook@erinet.com>
29) [109118] Re: PAC-guys ?? (LOG)
by "Karl F. Larsen" <k5di@zianet.com>
30) [109119] Re: Contest- PAC @ K4FB
by "Karl F. Larsen" <k5di@zianet.com>
31) [109120] 3560 xtal
by "Jim" <sunwatt@starband.net>
32) [109121] Re: DX with Mediocre Antenna
by "Steve/n0tu" <n0tu@webaccess.net>
33) [109122] The Return Loss Bridge (and SWR 101)
by John R Kirby <n3aaz-qrp@juno.com>
34) [109123] PAC contest - VE6AAN
by "Pat Byers" <pbyers@rttinc.com>
35) [109124] Receivers using the 74HC4066 as a switching mixer
by "Leon Heller" <leon_heller@hotmail.com>
36) [109125] Pacificon QSP Party Log
by "Rod N0RC" <rod@n0rc.com>
37) [109126] Re: Pacificon QSP Party Log
by brickle <brickle@pobox.com>
38) [109127] FS: LDG AT-11MP
by John Zaruba Jr <jzaruba@snip.net>
39) [109128] Re: Pacificon QSP Party Log
by "Richard Brummer, K2JQ" <k2jq@bestweb.net>
40) [109129] Re: Pacificon QSP Party Log
by brickle <brickle@pobox.com>
41) [109130] Re: FS: LDG AT-11MP
by John Zaruba Jr <jzaruba@snip.net>
42) [109131] Re: DX with Mediocre Antenna
by Bruce Muscolino <w6toy@erols.com>
43) [109132] My PA is toast?

by "Steve/n0tu" <n0tu@webaccess.net>
44) [109133] Re: [GQRP] Let's Design a Radio
by George Gingell <k3tks@u1.abs.net>
45) [109134] Re: My PA is toast?
by "John Dorson" <jdorson@Worldshare.net>
46) [109135] Re: My PA is toast?
by "Karl F. Larsen" <k5di@zianet.com>
47) [109136] Record 80 meter tuna caught off shores of Ft. Smith
by Nick Kennedy <nkennedy@tcainternet.com>
48) [109137] AT in Va
by Daryl Cline <wb4yex@yahoo.com>
49) [109138] New 4 Band K1 Early Notification
by Wayne Rogers <w5kdj@juno.com>
50) [109139] Re: My PA is toast?
by "Steve/n0tu" <n0tu@webaccess.net>
51) [109140] RE: Receiver design (home brew) recommendation?
by "John L. \"Jake\" Carter" <jakecart@ix.netcom.com>
52) [109141] RE: My PA is toast?
by "Tracy Markham" <tracy@bytemark.com>
53) [109142] Re: DX with Mediocre Antenna
by "Jim Stamper" <jstamper@shentel.net>
54) [109143] TT2 Conversion to 80 Meters
by K5KW@aol.com

Date: Fri, 19 Oct 2001 19:10:50 EDT
From: GaryMF@aol.com
To: QRP-l@lehigh.edu
Subject: [109090] 20m open
Message-ID: <7e.1c8f4049.29020cfa@aol.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Just worked 9V1YC on 14026.6 with K1 beaming long path
73 Gary K4MF

Date: Fri, 19 Oct 2001 19:17:32 -0400
From: wb2vuo@juno.com
To: ianpurdie@integritynet.com.au
Cc: qrp-l@lehigh.edu
Subject: [109091] Re: Return Loss Bridge
Message-ID: <20011019.192722.-515441.0.wb2vuo@juno.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Hi Ian. Keith here in the Depths of the Great Bergen Swamp.

It's back in the memory cells here somewhere. A return-loss bridge article from W7ZOI.

I'll get back to you as soon as I dredge it up.

72/73, Wm. Keith Hibbert, WB2VUO, TC/ARRL WNY Section
100% QRP from the Depths of the Great Bergen Swamp
"My night light runs more power than my Rig!"
mailto:wb2vuo@arrl.net

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<http://dl.www.juno.com/get/web/>.

Date: Fri, 19 Oct 2001 19:29:30 -0400

From: "Howard Kraus" <K2UD@adelphia.net>

To: <tomrscott@sterlink.net>

Cc: <qrp-1@Lehigh.EDU>

Subject: [109092] Re: Is Gary Diana okay?

Message-ID: <001401c158f5\$e70857c0\$64603018@buf.adelphia.net>

MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

He did change ISP's some time ago. He mentioned what his new web site address, but I failed to record it.

Didn't see him at his local hamfest, but that's not unusual, plus it was raining! Did see him at Dayton 2 weeks previously.

Gary, hope you're OK. I may be looking for an SMT TiCK kit to complement my SMK-1!

72 all

Howard Kraus, K2UD

Date: Fri, 19 Oct 2001 18:34:25 -0500
From: "Brice D. Hornback" <bdh@cyberbound.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [109093] Information Needed
Message-ID: <0db201c158f6\$974587c0\$7001a8c0@lwrnc1.in.home.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I'm looking for information on connecting a frequency counter/display to a 38 Special and also another one to a SMK-1. Has anyone done this? Any information on where to connect them would be very helpful.

Thanks in advance.

72 / 73 de Brice KA8MAV
<http://www.QRPp-I.com>

Date: Fri, 19 Oct 2001 19:36:51 -0400
From: "Pastor-KC1DI" <elbc@pivot.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [109094] Klog
Message-ID: <001b01c158f6\$ee931420\$8273ccd8@pivot.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Anyone using Klog as their computer logging program if so how did you down Load it.

thanks for The BW ,
73 dave kc1di

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (<http://www.grisoft.com>).
Version: 6.0.286 / Virus Database: 152 - Release Date: 10/9/01

> 503-538-5839 - Home
> KD7DMH
> _/_/_/_/_/_/_/_/_/_/_/_/_/_/_/_

Date: Sat, 20 Oct 2001 10:07:27 +1000
From: "Ian C. Purdie VK2TIP" <ianpurdie@integritynet.com.au>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [109096] Re: Return Loss Bridge
Message-ID: <3BD0C03F.EB354FC5@integritynet.com.au>
MIME-Version: 1.0
Content-Type: text/plain; charset=iso-8859-1
Content-Transfer-Encoding: quoted-printable

My grateful thanks to the so many people who responded.

72/73's

Ian Purdie
"I believe Australia is the best address on earth"
Budgewoi N.S.W. Australia - Co-ords S33=B014', E151=B034'
My FREE Newsletter: <http://www.electronics-tutorials.com/subscribe.htm>
VK2TIP "I'll give ya the TIP mate" QRP-L #1978. SOC #171 FP#91
URL - <http://www.electronics-tutorials.com/>

Date: Fri, 19 Oct 2001 19:12:44 -0700
From: "N7SG K7FD" <k7fd@hotmail.com>
To: qrp-l@Lehigh.EDU
Cc: elecrafft@qth.net
Subject: [109097] Last Minute Reminder: 8PM PST Tonight!!
Message-ID: <F232NfpjAnK2zjyyFKg0000bcec@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

Everyone can have fun in this one, so just a last minute repost of Doug's earlier message:

Guys, the internet is a powerful tool, and we are gonna prove it one more time. This Friday night (tonight!), the guys attending Pacificon are going to have a
QSO party at Pacificon with the following rules:

8:00 PM - 9:00 PM Annual NorCal Pacificon QSO Party.

Use any rig to work the contest.

CW & SSB Modes Only

Any NON-Warc Hamband

Scoring: 1 point per qso, must exchange name, signal report, and year first licensed. Final Score bands worked x qso's. Example you work WA6GER on 40, 20 and 15. 3 qso's x 3 bands, 9 points. You may work stations on as many bands as you wish, but only 1 mode per band. Logs must be turned in 30 minutes after the end of the contest.

Antennas: Must be able to fit in a 6' x 6' x 6' area.

Tuners are allowed.

Paul Harden, genius that he is, suggested that we expand this to include everyone. So, the great NorCal QRPacificon Contest Committee got together and met in a dark, dingy bar in Dos Palos, and came up with the following contest. The qrp-1 part of the contest will be as follows. It will run for 1 hour, which is 8:00 to 9:00 PM Pacific Daylight Time Friday night. I will let someone who understands and can explain it do the UTC stuff.

Here are the rules for the guys not at QRPacificon:

8:00 PM - 9:00 PM Annual NorCal Pacificon QSO Party.

Use any rig to work the contest. 5 Watts Power Limit

CW & SSB Modes Only

All Stations eligible to be worked

Any NON-Warc Hamband

Scoring: 1 point per qso, must exchange name, signal report, and year first licensed. Bonus points of 100 for working any Station at Pacificon. Final Score bands worked x qso's + Bonus points. Example you work WA6GER on 40, 20 and 15. 3 qso's x 3 bands, 9 points. You may work stations on as many bands as you wish, but only 1 mode per band. Logs must be posted to QRP-L with your total score and a list of your contacts. You have until Sunday night to post your logs. No prizes, no awards, just bragging rights and fun.

Antennas: Any Antenna Allowed

Note: QRPacificon stations will call CQ NCP, all others use CQ PAC

Tuners are allowed. Have fun.

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

Date: Fri, 19 Oct 2001 22:28:48 -0400
From: John Zaruba Jr <jzaruba@snip.net>
To: <qrp-1@lehigh.edu>

Subject: [109098] FT-817/OTT/Z11 Installation
Message-ID: <B7F659A0.819%jzaruba@snip.net>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

QRP-Lers,

My good friend Don, KG2ER, asked me to help him with his FT-817/One Touch Tune/Z11 installation. Don had purchased a very new Z-11 with 1.4 firmware. Don looked on W4RT.com, and saw the the OTT / Z-11 Compatibility Kit supplied 1.4 f/w, which he already had. So he asked me to modify his Z-11, and didn't buy the kit from W4RT.

The mod is very straight forward, with one exception. THE LINE GOING FROM THE TOP LEAD OF THE TUNING LED MUST BE TERMINATED TO THE RING, NOT THE TIP, OF THE MINI-STEREO PLUG. I had about 45 minutes of head scratching, before I looked in the August QQ, and re-read Greg Buchwald K9QI's review of the OTT.

After finishing up, and closing the tuner up, I extracted payment from Don. He had to sit here for an hour while I played with his radio. Don is very new to QRP, so new he doesn't yet subscribe to this list, and he isn't completely convinced that you really can make contacts with 5 watts. Right out of the gate, I replied to EA4ECY's CQ on 20 SSB, and got a 55 report in return. I think that Q helped make Don a believer.

It was also fun having an FT-817 and a K2 side-by-side for comparison. There are some things I really like about the 817, and some things I don't. The 817 is a great little rig, but I'm not quite ready to part with one of my K2's to get one. When I have a few more federal reserve notes stashed in the cookie jar, I'll probably buy an 817 AND keep both K2's (one can never have too many rigs).

72/3,

John AA2BN
K2 #1912
K2 #1568

Date: Fri, 19 Oct 2001 19:35:51 -0700
From: "N7SG K7FD" <k7fd@hotmail.com>
To: qrp-l@Lehigh.EDU
Cc: elecraft@qth.net
Subject: [109099] Make that DAYLIGHT time, hi!
Message-ID: <F139yiGh05YFRcmVF0h0000be2c@hotmail.com>

Mime-Version: 1.0
Content-Type: text/plain; format=flowed

Norcal's QSO Party at Pacificon starts at 8pm PDT, not PST...oops!

Have fun!

John K7FD

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

Date: Fri, 19 Oct 2001 22:53:00 -0400
From: Lourette <lourette@localnet.com>
To: qrp-l@Lehigh.EDU
Subject: [109100] Receiver design (home brew) recommendation?
Message-ID: <3.0.5.32.20011019225300.007bb5b0@mail.localnet.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi group,

I ran across a regen receiver design on the Jade website (<http://www.jadeprod.com/ocr.html>). It referred to an article in '98 QST by N1BYT. Alas, I just became a HAM and started receiving QST in September.

I would like to construct several manhattan style receivers with my children and their friend. It will be part of a school project. I am prepared to coach them in the theory of the radio as I am an electrical engineer (new to RF). I know the theory, but am not ready to design a rig myself.

My question is this. Can you recommend a receiver design (either super het or regen.) that would make a good project? I think I would prefer one with some IC's to keep the parts count down. I would like the receiver to cover a novice band, because I intend to have them make a simple CW transmitter next. I like the N1BYT receiver design on the Jade website since it covers all mode. I think they would like listening to the foreign broadcast stations as well as SSB and CW.

Also, if you could recommend a modern book that may contain some receiver designs that I may pick from.

Thanks.

73,

Rich

--

Richard Lourette
AB2MD
lourette@localnet.com

Date: Fri, 19 Oct 2001 19:54:29 -0700
From: "N7SG K7FD" <k7fd@hotmail.com>
To: pwomble1@tampabay.rr.com
Cc: qrp-1@Lehigh.EDU
Subject: [109101] Re: Make that DAYLIGHT time, hi!
Message-ID: <F22Jzcccki5ww5e7TgW0000bcc5@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

Yep!

Or 0300 UTC to keep it simple!

73 John K7FD

>
>That's 11pm on the East Coast...right?
>
>Paul K4FB
>

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

Date: Fri, 19 Oct 2001 22:44:13 -0500
From: Fairbairn Bob-C12509 <Bob.Fairbairn@motorola.com>
To: Fairbairn Bob-C12509 <Bob.Fairbairn@motorola.com>,
Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [109102] RE: FT-817 Ref Oscillator Fix
Message-ID: <50A3595A9022DE4D8FB4702CD4F79CF72770CE@il06exm25.ds.mot.com>
MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"

I got lucky.

A friend of mine runs the local ham store in Wheaton IL. Well his laptop was acking up and my radio was acting up. I fixed the PC and we swaped the little ref osc board. Now my radio is just fine!!!! The board is somehow defective. I am begining to wonder if Yaesu is only spot checking radios or their test fixtures are bad. I will call them again on Monday and report in.... Thanks all for the help.

QRP JOTA tommorrow!!!

72 KE9A

-----Original Message-----

From: Fairbairn Bob-C12509
Sent: Friday, October 19, 2001 5:01 PM
To: Low Power Amateur Radio Discussion
Subject: RE: FT-817 Ref Oscillator Fix

Thanks Trevor,

I talked to the factory and the tech said a bunch folks were calling. A bad batch or something! So I am going to fedex it. I tried to tweak the osc. with not much luck. Mabye I will open the radio back up and look at that cap!

72 KE9A (slightly bummed out!)

-----Original Message-----

From: Trevor Jacobs [mailto:fxtech@earthlink.net]
Sent: Friday, October 19, 2001 4:31 PM
To: Fairbairn Bob-C12509
Cc: Low Power Amateur Radio Discussion
Subject: Fw: FT-817 Ref Oscillator Fix

Bob,

I had the exact same problem, Here's what I did to fix it. Talk to Andy at Yaesu tech support if you have any question, as he was very helpful. BTW I did eventually install a TCXO for better stability, along with a cw (500 Hz) filter. Hope this helps. I posted this a while back, but it may have been missed, so will post again for any new FT-817 owners. Don't know if it's a common problem, but I've had several people e-mail me direct with the same problem. My guess is that it was probably a batch of them that squeaked

through quality control. Take care...

72/73
Trev
KG6CYN

----- Original Message -----

> Hi Everyone,
>
> Thought you may find this useful. I notice that my FT-817 was quite a bit
> off frequency yesterday. I.E. the TX and RX frequency was not the same as
> the frequency displayed. It was off by like 800 Hz on 10 meters. After
> looking at the schemes and chatting with one of the techs at Yaesu (very
> nice guy by the way but I can't remember his name...sorry), the problem
was
> found. To make a long story short, the reference oscillator for the DDS
> (AD9850!) was off frequency. To fix this, C5001 (27pF), located on the
> REF-UNIT board next to the crystal, had to be changed to a 15pF cap and
> TC5001 had to be adjusted. I didn't have a surface mount cap, but I did
have
> some very small NPO caps. I changed the cap and adjusted TC5001 for the
> correct frequency, and it's working great now, right on frequency. I don't
> know if this is a common problem, but thought that I'd pass this along. If
> you install the TCXO Unit, this is not an issue, as it replaced the stock
> unit. Take care...
>
> 72/73
> Trev
> KG6CYN
>

Date: Fri, 19 Oct 2001 22:45:26 -0500
From: Steve Yates - AA5TB <aa5tb@arrl.net>
To: QRP-L Distribute <qrp-l@Lehigh.EDU>
Subject: [109103] DX with Mediocre Antenna
Message-ID: <007401c15919\$a86db0e0\$6c703ed8@pavilion>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

Even after being a ham for most of my life and operating QRP most of that time,
radio never ceases
to amaze me...

The family and I have been looking for a new house so I have taken down all of my permanent antennas so I can start reworking the wall where I had a cable bulkhead entrance going into my house. Just to keep me on the air, I put up a random wire that goes from my window seal, up to the eave of the house and over to the top of a tree. Total antenna length of about 30 feet and a maximum height of about 20 feet at the far end. My SGC SG-237 autotuner is sitting in the window seal connected directly to the antenna wire that is squashed beneath the window. There is a short 1" braid going to a ground rod for a rather poor return.

Now I know that this is an inefficient antenna but it keeps me on the air on all bands during this temporary situation. The interesting thing is that it still works rather well but of course "anything works" to some extent. On Thursday morning I received a confirmed true 599 report from JA1CQR on 40m CW and he literally did not believe that I was QRP! I didn't tell him I was QRP until we were halfway through with our QSO as I usually prefer to do.

If that wasn't enough, Thursday night the wind caused my antenna's support rope to break in the tree and the antenna fell to the ground. Being late, I simply reconnected the rope to the tree at about head height. Maximum height of the antenna was now only 6 feet. Now, I of course didn't expect very good results but this morning I worked JA0CRG on the first call. He "only" gave me a 569 and we had a nice QSO. Still, that's not bad for an antenna only 6' high that should radiate only straight up and have high ground losses ;-)

Of course big antennas on their end and good gray line propagation helped but still...

73,
Steve Yates - AA5TB
Fort Worth, TX - EM12gs
<http://www.geocities.com/aa5tb>
aa5tb@arrl.net

Date: Fri, 19 Oct 2001 22:50:42 -0500
From: Steve Yates - AA5TB <aa5tb@arrl.net>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [109104] Re: Receiver design (home brew) recommendation?
Message-ID: <007801c1591a\$64b52760\$6c703ed8@pavilion>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

Here is a link to a regenerative receiver that I built and had a lot of fun with:

<http://www.geocities.com/aa5tb/regen.html>

I think it has most of the requirements that you spoke of although it isn't a step-by-step article and it's just one example.

73,
Steve Yates - AA5TB
Fort Worth, TX - EM12gs
<http://www.geocities.com/aa5tb>
aa5tb@arrl.net

Date: Fri, 19 Oct 2001 22:53:11 -0500
From: "Mike Duke, K5XU" <mikeduke@netdoor.com>
To: "qrp" <qrp-1@lehigh.edu>
Subject: [109105] Magnets and pics
Message-ID: <001701c1591d\$0981a6e0\$8ac794d0@k5xu>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Some of my neat little gadgets which call an Altoids box home often crawl or fly around the desk.

Will the close proximity of refrigerator magnets wipe out pic programs? It would be simple to place magnets on the underside of the tins so that they could sit atop a radio, or something with more mass. But, I don't want to wipe them out.

Mike Duke, President,
American Council of Blind Radio Amateurs

Date: Fri, 19 Oct 2001 23:15:19 -0500
From: "Mike Duke, K5XU" <mikeduke@netdoor.com>
To: "qrp" <qrp-1@lehigh.edu>
Subject: [109106] Tiny Tornado Questions
Message-ID: <004b01c1591d\$e6e9f320\$8ac794d0@k5xu>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

What is the power output at 9 and 12 Volts?

Also, does it fit into the Altoids tin with the heatsink which must be used for 12 volt operation?

Mike Duke, K5XU

Date: Sat, 20 Oct 2001 00:13:35 -0400
From: "ZOOM" <kandrparker@sympatico.ca>
To: <mikeduke@netdoor.com>,
 "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [109107] Re: Magnets and pics
Message-ID: <003d01c1591d\$968f9380\$3294fea9@robertpa>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

No magnets will not erase the PICs.

----- Original Message -----

From: Mike Duke, K5XU <mikeduke@netdoor.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Sent: Friday, October 19, 2001 11:53 PM
Subject: Magnets and pics

> Some of my neat little gadgets which call an Altoids box home often crawl
> or
> fly around the desk.

>
> Will the close proximity of refrigerator magnets wipe out pic programs? It
> would be simple to place magnets on the underside of the tins so that they
> could sit atop a radio, or something with more mass. But, I don't want to
> wipe them out.
>
> Mike Duke, President,
> American Council of Blind Radio Amateurs
>

Date: Sat, 20 Oct 2001 04:17:19 +0000
From: "Leon Heller" <leon_heller@hotmail.com>
To: mikeduke@netdoor.com, qrp-1@Lehigh.EDU
Subject: [109108] Re: Magnets and pics
Message-ID: <F6275hwDRo2unX1bQkx0000dce0@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

>From: "Mike Duke, K5XU" <mikeduke@netdoor.com>
>Reply-To: mikeduke@netdoor.com
>To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
>Subject: Magnets and pics
>Date: Fri, 19 Oct 2001 22:53:11 -0500
>

>Some of my neat little gadgets which call an Altoids box home often crawl
>or
>fly around the desk.
>

>Will the close proximity of refrigerator magnets wipe out pic programs?

No, a magnetic field won't affect them. EMP from a nuclear explosion might do it, but you would probably have other things on your mind. Programmable devices can sometimes pick up a glitch via an in-system programming cable that corrupts the stored program, if it is left connected to the host system when it is powered on or off.

73, Leon

--

Leon Heller, G1HSM Tel: +44 1327 359058 Email:leon_heller@hotmail.com
My web page: http://www.geocities.com/leon_heller
My low-cost Altera Flex design kit: <http://www.leonheller.com>

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

Date: Sat, 20 Oct 2001 00:40:41 -0400
From: Paul Womble <pwomble1@tampabay.rr.com>
To: QRP-L <qrp-l@lehigh.edu>
Subject: [109109] Contest- PAC @ K4FB
Message-ID: <3BD10048.6DDAACFE@tampabay.rr.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Will the Pacificon Bonus be added after the weekend? How do we know who was there??

| UTC | CALL | RST | NAME | YEAR | |
|-------|--------|-----|-------|------|-----|
| 0305 | AA1MY | 589 | SEAB | 54 | 20M |
| 0315 | VE6AAN | 569 | PAT | 71 | |
| 0318 | AB2KT | 579 | FRANK | 62 | |
| 0323 | N0SXX | 589 | GARY | 84 | |
| 0328 | W0PW | 579 | JEFF | 70 | |
| 0332 | WA8NTA | 559 | DICK | 64 | |
| 0334 | N0RC | 559 | ROD | 98 | |
| 0339 | AA1MY | 549 | SEAB | 51 | 40M |
| 0346 | N0RC | 559 | ROD | 98 | |
| 0349 | WJ4P | 579 | RANDY | 66 | |
| 0351 | NA5N | 559 | PAUL | 63 | |
| AC6UV | GODY | 559 | 85 | | 20M |

12 QSO'S X 2 BANDS = 24 POINTS

Thanks NA5N and NorCal!!

73
Paul K4FB

Date: Sat, 20 Oct 2001 00:45:36 -0400
From: "ss lyon" <sslyon@megalink.net>
To: "chat qrp" <qrp-1@lehigh.edu>
Subject: [109110] PAC-guys ?? (LOG)
Message-ID: <01fc01c15922\$0f59fb80\$038798ce@megalink.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

OK... aside from the time warp, where were the PAC guys? Got on as a last minute whim and had some nice Q's including IK0IXI, but not sure if any of the others were PAC's. N0RC was pounding in here as usual, but the usual band of suspects were not to be heard. Pretty quiet nite, really. The log:

20M

K4FB 544 449 PAT FL 94
N5GW 559 559 GENE MS 56 (1w !)
VE6AAN 544 449 PAT 71
N0RC 579 559 ROD 98
N0SXX 569 579 GARY CO 68
WA8NTA 559 559 DICK CO 64
WJ4P 589 589 RANDY 66
AC6UV 569 559 GODY 85
=====

40M

K4FB 559 559 PAUL 94
=====

DX:

IK0IXI/QRP 529 519 FABIO (no yr, just bragging)

(Q's = 9) X (Bands = 2) = 18 points (if i understand the scoring)

Rig: IC706IIG to an Eighty Eight ft doublet at 60'.

Seabury & Sharon Lyon
99 Sparrowhawk Mtn Rd
Bethel, Me, 04217 U.S.A.
207-836-2576

Virus Protection by Norton and ZoneAlarm

Date: Fri, 19 Oct 2001 21:50:16 -0700
From: "N7SG K7FD" <k7fd@hotmail.com>
To: qrp-1@Lehigh.EDU
Subject: [109111] Re: PAC-guys ?? (LOG)
Message-ID: <F1022Dj2t13PAo9wblp0000bc88@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

I only heard and worked one PAC station, WA7SPY Glenn. Did not hear any other stations from Pacificon! :(

73 John K7FD

>From: "ss lyon" <sslyon@megalink.net>
>Reply-To: sslyon@megalink.net
>To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
>Subject: PAC-guys ?? (LOG)
>Date: Sat, 20 Oct 2001 00:45:36 -0400

>
>OK... aside from the time warp, where were the PAC guys? Got on as a last
>minute whim and had some nice Q's including IK0IXI, but not sure if any of
>the others were PAC's. N0RC was pounding in here as usual, but the usual
>band of suspects were not to be heard. Pretty quiet nite, really. The log:

>
>20M
>-----
>K4FB 544 449 PAT FL 94
>N5GW 559 559 GENE MS 56 (1w !)
>VE6AAN 544 449 PAT 71
>N0RC 579 559 ROD 98
>N0SXX 569 579 GARY CO 68
>WA8NTA 559 559 DICK CO 64
>WJ4P 589 589 RANDY 66
>AC6UV 569 559 GODY 85

>=====

>
>
>40M
>-----
>K4FB 559 559 PAUL 94

>=====

>
>DX:
>-----
>IK0IXI/QRP 529 519 FABIO (no yr, just bragging)
>
>
>(Q's = 9) X (Bands = 2) = 18 points (if i understand the scoring)
>
>Rig: IC706IIG to an Eighty Eight ft doublet at 60'.
>
>
>
>Seabury & Sharon Lyon
>99 Sparrowhawk Mtn Rd
>Bethel, Me, 04217 U.S.A.
>207-836-2576
>
>Virus Protection by Norton and ZoneAlarm
>

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Date: Fri, 19 Oct 2001 22:00:04 -0700
From: Eric Swartz WA6HHQ - Elecraft <eric@elecraft.com>
To: Elecraft mail list <elecraft@qth.net>
Subject: [109112] New-> 4-Band Module for the Elecraft K1 Transceiver
Message-ID: <3BD104D4.AE6FE29D@elecraft.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Elecraft's compact CW transceiver, the K1, just became a four-bander. In addition to the 2-band version, the rig is now available with a single band-switched module that covers 40, 30, 20, and either 17 or 15 meters. The 4-band module can also be ordered as an option (KFL1-4), so existing K1s can be easily upgraded.

No hardware or firmware changes are necessary to use the 4-band module. It's the same size as the 2-band unit, and the transceiver will recognize whether a 2- or 4-band module is installed. The K1's low current drain (about 55 mA on receive) is unchanged thanks to the use of latching relays for all band switching functions.

The 4-band module works with all K1 options, including the KAT1 automatic antenna tuner, KNB1 noise blanker, and KBT1 battery pack. With the internal ATU and battery installed, the 4-band K1 offers an unprecedented combination of features for field operation or travel, in a package measuring only 2.2"H x 5.5"W x 5.7"D.

The 4-band module covers several of the most popular HF bands. 40 and 20 meters provide activity day and night, and are important for contests, Field Day, and QRP events. 30 meters has a small but active CW segment, and as a WARC band provides a "haven" from contests. The 4th band can be either 15 or 17 meters. 15 meters is a traditional low-noise, daylight DX band, and is very active during Field Day. 17 meters is another contest-free zone, and stays open a bit longer than 15 meters.

These are the only bands available for the 4-band unit. However, it only takes a couple of minutes to swap in a 2-band module, accommodating those who want 80 meter coverage or specific 2-band combinations.

The 4-band K1 (K1-4) is priced at \$349. The 4-band option for existing K1s (KFL1-4) is \$129. Both are available now.

The prices for the original 2-band K1 and additional 2-band option modules remain unchanged at \$279 and \$59, respectively.

Detailed information on the K1-4 and the KFL1-4, along with an updated on-line order form, will be on our web site sometime between now and the end of Saturday. (We're all at the Pacificon hamfest now and are updating everything remotely.)

For additional details, see our web page (<http://www.elecrafter.com>), or call 831-662-8345.

73,
Wayne, N6KR
Eric, WA6HHQ

Date: Fri, 19 Oct 2001 22:09:23 -0700
From: "N7SG K7FD" <k7fd@hotmail.com>
To: elecrafter@qth.net
Cc: qrp-1@Lehigh.EDU
Subject: [109113] FS: KFL1 40/20m
Message-ID: <F48TiFQ0dW0B3fytz7x00012afc@hotmail.com>
Mime-Version: 1.0
Content-Type: text/plain; format=flowed

\$39, works great!

73 John K7FD

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Date: Fri, 19 Oct 2001 23:17:34 -0600
From: "Rod N0RC" <rod@n0rc.com>
To: <sslyon@megalink.net>,
"Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [109114] Re: PAC-guys ?? (LOG)
Message-ID: <001301c15926\$87747470\$6401a8c0@c919125b>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

----- Original Message -----
From: "ss lyon" <sslyon@megalink.net>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Sent: Friday, October 19, 2001 10:45 PM
Subject: PAC-guys ?? (LOG)

> OK... aside from the time warp, where were the PAC guys? Got on as a
last
> minute whim and had some nice Q's including IK0IXI, but not sure if
any of
> the others were PAC's. N0RC was pounding in here as usual, but the
usual

^^

SRI Seab, I'll turn the volume down next time. ;-)

73, Rod N0RC
Ft Collins, CO

Date: Sat, 20 Oct 2001 03:22:04 -0500
From: "Brice D. Hornback" <bdh@cyberbound.net>
To: <mikeduke@netdoor.com>,
"Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>,

Subject: [109115] Re: Tiny Tornado Questions
Message-ID: <0e9d01c15940\$4d8ab700\$7001a8c0@lwrnc1.in.home.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Mike,

As far as power output is concerned, I'm getting about 300-350mW on 9V and just over 1/2 watt at 12V.

Ok.. the heatsink question... Well... just to find out what would happen running it at 12 volts WITHOUT a heatsink... I keyed it up into a dummy load for TEN MINUTES! Yep... ten straight minutes. Ok... the 2N2222 gets HOT but it was fine. It didn't explode. The output transistor didn't melt all over the place. No loss in power. No problems at all. It was fine. So... now I'll say the use of a heatsink is "recommended" but if you want to run it without one at 12 volts it should be fine. NOTE: This was done on my test bench and it was not in a sealed case. If you mount it in an Altoids tin and operate at 12 volts and don't use a heatsink... at least open the lid so the little thing can get a little fresh air. If you try it and keep the lid shut... let me know how it does. Also, DON'T touch the output transistor with your finger after TEN minutes of continuous keying! Don't ask.... hi hi

It will fit in an Altoids tin with the heatsink...but you'll have to customize the heatsink a little. You can use a pair of pliers and bend it over. You might have to "trim" it a little bit (or bend back the corners) because of the spacing with the vertically mounted resistors. With a little planning, I'm sure it can be done.

I've spent most of the night soldering and unsoldering...playing with different parts and configurations as well as punishing it with TEN straight minutes keyed into a dummy load without a heatsink. This transceiver can withstand a lot of abuse.

72 / 73 de Brice KA8MAV
Indianapolis, IN EM79au
QRPp-I #1, QRP ARCI #10972, QRP-L #2360,
KLQRP, FPQRP -156, ARS, ARRL

QRPp International - and "Tiny Tornado" Kits
<http://www.QRPp-I.com>

----- Original Message -----

From: Mike Duke, K5XU <mikeduke@netdoor.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>

Sent: Friday, October 19, 2001 11:15 PM
Subject: Tiny Tornado Questions

> What is the power output at 9 and 12 Volts?
>
> Also, does it fit into the Altoids tin with the heatsink which must be
used
> for 12 volt operation?
>
> Mike Duke, K5XU
>
>

Date: Sat, 20 Oct 2001 03:42:32 -0500
From: "Brice D. Hornback" <bdh@cyberbound.net>
To: <QRPP-I@yahoogroups.com>, <mikeduke@netdoor.com>,
"Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [109116] Re: Tiny Tornado Questions
Message-ID: <0eb601c15943\$292424c0\$7001a8c0@lwrnc1.in.home.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Ok... I just tried it... the heatsink bends over just fine and clears
everything. Well, it touches one resistor but that's okay. It doesn't
affect anything. It will definately fit in an Altoids tin WITH the
heatsink.

72 / 73 de Brice KA8MAV
Indianapolis, IN EM79au
QRPP-I #1, QRP ARCI #10972, QRP-L #2360,
KLQRP, FPQRP -156, ARS, ARRL

QRPP International - and "Tiny Tornado" Kits
<http://www.QRPP-I.com>

Date: Sat, 20 Oct 2001 07:27:45 -0400
From: "NZ8J" <timcook@erinet.com>
To: <qrp-l@Lehigh.EDU>

Subject: [109117] FS: MFJ 941E 300w Antenna tuner
Message-ID: <00c001c1595a\$3e092540\$6122fea9@nec>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

MFJ -941 E dual needle meter, exc condition, ant switching, \$75
thanks
Tim
NZ8J

Date: Sat, 20 Oct 2001 05:51:34 -0600 (MDT)
From: "Karl F. Larsen" <k5di@zianet.com>
To: Rod N0RC <rod@n0rc.com>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [109118] Re: PAC-guys ?? (LOG)
Message-ID: <Pine.LNX.4.33.0110200547100.1192-100000@cannac.fun>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi Rod, I saved Doug's message and was listening on 10 meters where there were JA's working JA's sounded like a local net on cw, to 15 which was dead, to 20 where I worked XE2RN in baha and then 40 where I worked a couple others also looking for pac guys. But like you heard nothing. Maybe 6' x 6' x 6' doesn't get out well.

Or perhaps they were on phone?

On Fri, 19 Oct 2001, Rod N0RC wrote:

>
> ----- Original Message -----
> From: "ss lyon" <sslyon@megalink.net>
> To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
> Sent: Friday, October 19, 2001 10:45 PM
> Subject: PAC-guys ?? (LOG)
>
>
> > OK... aside from the time warp, where were the PAC guys? Got on as a
> last
> > minute whim and had some nice Q's including IK0IXI, but not sure if

> any of
> > the others were PAC's. NØRC was pounding in here as usual, but the
> usual
>
>
> SRI Seab, I'll turn the volume down next time. ;-)
>
> 73, Rod NØRC
> Ft Collins, CO
>
>
>
--

Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -
<http://www.qsl.net/k5di/>

Date: Sat, 20 Oct 2001 05:56:25 -0600 (MDT)
From: "Karl F. Larsen" <k5di@zianet.com>
To: Paul Womble <pwomble1@tampabay.rr.com>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [109119] Re: Contest- PAC @ K4FB
Message-ID: <Pine.LNX.4.33.0110200553550.1192-100000@cannac.fun>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Now I know. The Pac guys were on 20 meters and went over me. Paul according to the info I have you need to send your log in no later than an hour after the contest. I don't think you can make it...:-)

On Sat, 20 Oct 2001, Paul Womble wrote:

> Will the Pacificon Bonus be added after the weekend? How do we know who
> was there??

>
> UTC CALL RST NAME YEAR
>
> 0305 AA1MY 589 SEAB 54 20M
> 0315 VE6AAN 569 PAT 71
> 0318 AB2KT 579 FRANK 62
> 0323 NØSXX 589 GARY 84
> 0328 WØPW 579 JEFF 70
> 0332 WA8NTA 559 DICK 64

> 0334 N0RC 559 ROD 98
>
> 0339 AA1MY 549 SEAB 51 40M
> 0346 N0RC 559 ROD 98
> 0349 WJ4P 579 RANDY 66
> 0351 NA5N 559 PAUL 63
>
> AC6UV GODY 559 85 20M
>
>
> 12 QSO'S X 2 BANDS = 24 POINTS
>
> Thanks NA5N and NorCal!!
>
> 73
> Paul K4FB
>
>

--

Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -
http://www.qsl.net/k5di/

Date: Sat, 20 Oct 2001 07:43:02 -0500
From: "Jim" <sunwatt@starband.net>
To: "QRP-L" <qrp-L@Lehigh.edu>, "QRPp-L" <QRPp-I@yahoogroups.com>
Subject: [109120] 3560 xtal
Message-ID: <003201c15964\$c52f5620\$d25a3f94@computer>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Just had a QSO with Nick WA5BDU in Russelville, AR. I'm just a short hop away in Newton county AR, but at least he knows his Tuna tin TX (700mW) is sending. He's trying to use a 3.579.5 xtal and not getting any contacts. I was his 1st QSO with it.

If anyone has an extra 3.560 xtal he sure could use it.

WA5BDU
NICHOLAS R. KENNEDY

300 S VANCOUVER AVE
RUSSELLVILLE, AR 72801

nkennedy@tcainternet.com

He dosnt know Im doing this, so before you send him anything, email him 1st.

Jim KJ5TF
"All Milliwatts, All The Time"

Date: Sat, 20 Oct 2001 06:54:39 -0600
From: "Steve/n0tu" <n0tu@webaccess.net>
To: <aa5tb@arrl.net>
Cc: "QRP-L" <QRP-L@lehigh.edu>
Subject: [109121] Re: DX with Mediocre Antenna
Message-ID: <004701c15966\$6247e660\$6a211d82@cos.agilent.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

What you're saying is a little skill and choosing the right cndx really helps make up for less than average antennas?! I would agree!

Steve/n0tu

----- Original Message -----
From: "Steve Yates - AA5TB" <aa5tb@arrl.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Sent: Friday, October 19, 2001 9:45 PM
Subject: DX with Mediocre Antenna

> Even after being a ham for most of my life and operating QRP most of that
> time, radio never ceases
> to amaze me...
>
> The family and I have been looking for a new house so I have taken down
> all of my permanent
> antennas so I can start reworking the wall where I had a cable bulkhead
> entrance going into my
> house. Just to keep me on the air, a put up a random wire that goes from
> my window seal, up to the
> eve of the house and over to the top of a tree. Total antenna length of
> about 30 feet and a

> maximum height of about 20 feet at the far end. My SGC SG-237 autotuner
is sitting in the window
> seal connected directly to the antenna wire that is squashed beneath the
window. There is a short
> 1" braid going to a ground rod for a rather poor return.
>
> Now I know that this is an inefficient antenna but it keeps me on the air
on all bands during this
> temporary situation. The interesting thing is that it still works rather
well but of course
> "anything works" to some extent. On Thursday morning I received a
confirmed true 599 report from
> JA1CQR on 40m CW and he literally did not believe that I was QRP! I
didn't tell him I was QRP
> until we were halfway through with our QSO as I usually prefer to do.
>
> If that wasn't enough, Thursday night the wind caused my antenna's support
rope to break in the
> tree and the antenna fell to the ground. Being late, I simply reconnected
the rope to the tree at
> about head height. Maximum height of the antenna was now only 6 feet.
Now, I of coarse didn't
> expect very good results but this morning I worked JA0CRG on the first
call. He "only" gave me a
> 569 and we had a nice QSO. Still, that's not bad for an antenna only 6'
high that should radiate
> only straight up and have high ground losses ;-)
>
> Of coarse big antennas on their end and good gray line propagation helped
but still...
>
> 73,
> Steve Yates - AA5TB
> Fort Worth, TX - EM12gs
> <http://www.geocities.com/aa5tb>
> aa5tb@arrl.net
>
>
>
>

Date: Sat, 20 Oct 2001 09:22:05 -0400
From: John R Kirby <n3aaz-qrp@juno.com>
To: qrp-l@Lehigh.EDU
Subject: [109122] The Return Loss Bridge (and SWR 101)

Message-ID: <20011020.092411.-247211.0.n3aaz-qrp@juno.com>

MIME-Version: 1.0

Content-Type: text/plain

Content-Transfer-Encoding: 7bit

This may help with respect to the current topic . . .

>>>Subject: Re: Return Loss Bridge<<<

SWR (Standing Wave Ration)

Forward wave . . .

Reflected wave . . .

REFLECTION expressed in terms of return loss.

The reflection coefficient ρ 'rho' can be determined in several ways, one of which is is to measure (with a bridge) the 'forward' RF *energy* and then measure the 'reflected' RF *energy* and then compute (rho) . . . for example . . .

$$\rho = (\text{forward} - \text{reflected}) / \text{forward}$$

$$p = (F - R) / F$$

Assume forward wave is equal to 1 (one) and reflected wave equal to 0.5 (one half).

$$p = (1 - 0.5) / 1$$

$$p = 0.5$$

Now, using rho lets compute SWR

$$\text{SWR} = (1 + p) / (1 - p)$$

$$\text{SWR} = (1 + 0.5) / (1 - 0.5)$$

$$\text{SWR} = 3$$

All this can be done with a RETURN LOSS BRIDGE
(three resistors and a diode, OP-Amp and Radio Shack DVM)
even at frequency (s) above HF.

72

John

N3AAZ

FM 19 xa

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Date: Sat, 20 Oct 2001 07:40:54 -0600

From: "Pat Byers" <pbyers@rttinc.com>

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: [109123] PAC contest - VE6AAN

Message-ID: <GNECLIKFAJLGJPJHIEG00EDCCDAA.pbyers@rttinc.com>

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

OK, it's not much but here is is:

| TIME | CALL | NAME SENT | REC'D | YEAR |
|------|-------|-----------|---------|------|
| 0315 | K4FB | PAUL | 569 579 | 94 |
| 0320 | AA1MY | SEAB | 449 549 | 54 |

Others have mentioned good conditions but not here. Seab started out strong but when I QSOed him he was way down in the noise. Much QRN, likely from solar activity, and occasional QRM here. However, it was a neat idea for a contest and I hope it continues next year.

73,

Pat VE6AAN

Ponoka, AB

Date: Sat, 20 Oct 2001 15:07:30 +0100

From: "Leon Heller" <leon_heller@hotmail.com>

To: "Low Power" <qrp-l@Lehigh.EDU>

Subject: [109124] Receivers using the 74HC4066 as a switching mixer

Message-ID: <DAV60dkSmLAztxc1o8y000056b3@hotmail.com>

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

Here are a couple of receiver designs using the 74HC4066 as a switching mixer. It's not as good for this purpose as the high-speed bus switch devices like the FST3125, but easier to get hold of and use.

<http://www.wia.org.au/>

<http://perso.wanadoo.fr/f6crp/tech/rxdc.pdf>

The second one is in French, BTW. The schematics are a bit unclear in the first one, but you could probably email the author for clarification.

73, Leon

Leon Heller, G1HSM leon_heller@hotmail.com

http://www.geocities.com/leon_heller

Low-cost Altera Flex design kit: <http://www.leonheller.com>

Date: Sat, 20 Oct 2001 08:27:10 -0600
From: "Rod N0RC" <rod@n0rc.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [109125] Pacificon QSP Party Log
Message-ID: <001901c15973\$4e435070\$6401a8c0@c919125b>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Contest Date & Time: 0300-0400z 20-OCT-2001

OP, Call: Rod Cercone, N0RC
Setup: KNWD 570D(G)@5W, Attic Dipole
Band: 40, 20
Mode: CW

| DATE | FREQ | TIME | STATION | S-RST | R-RST | NAME | NR |
|-------|------|------|---------|-------|-------|-------|----|
| 10/20 | 14 | 0325 | AA1MY | 559 | 579 | Seab | 51 |
| " | " | 0334 | K4FP | 559 | 559 | Paul | 94 |
| " | " | 0339 | WJ4P | 559 | 559 | Randy | 66 |
| " | 7 | 0344 | WD9FJL | 559 | 579 | Steve | 01 |
| " | " | 0345 | NA5N | 579 | 579 | Paul | 63 |

| | | | | | | | |
|---|---|------|------|-----|-----|-------|----|
| " | " | 0346 | K4FB | 559 | 559 | Paul | 94 |
| " | " | 0347 | N0RZ | 559 | 569 | Chas | ?? |
| " | " | 0352 | WJ4P | 559 | 549 | Randy | 66 |

16 points if you count 'em all, 14 if you "86" N0RZ can't read my handwriting to determine NR.

20m was noisy, S5 static and had deep slow QSB, K4FB faded in and out many times before I could log him.

40m was pretty good until my CQ Freq got creamed by a digi/RTTY station. Heard AA1MY but didn't work him. Got a call from a W6 but couldn't log it (Digi/RTTY QRM). Not bad, coast to coast on 40m, with a low _compromise_ antenna!

Lots of fun, hope this will be an annual event, thanks Paul & Doug for pulling things together.

73, Rod N0RC
Ft Collins, CO

Date: Sat, 20 Oct 2001 10:38:19 -0400
From: brickle <brickle@pobox.com>
To: qrp-l@lehigh.edu
Subject: [109126] Re: Pacificon QSP Party Log
Message-ID: <3BD18C5B.967AEF2@pobox.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Rod N0RC wrote:

```
>
> Contest Date & Time: 0300-0400z 20-OCT-2001
>
> OP, Call: Rod Cerkoney, N0RC
> Setup: KNWD 570D(G)@5W, Attic Dipole
> Band: 40, 20
> Mode: CW
>
> DATE  FREQ  TIME  STATION  S-RST  R-RST  NAME  NR
> 10/20  14     0325  AA1MY    559    579   Seab  51
>   "    ""     0334  K4FP     559    559   Paul  94
>   "    ""     0339  WJ4P     559    559   Randy 66
>   "    7     0344  WD9FJL   559    579   Steve 01
```

> " " 0345 NA5N 579 579 Paul 63
> " " 0346 K4FB 559 559 Paul 94
> " " 0347 N0RZ 559 569 Chas ??
> " " 0352 WJ4P 559 549 Randy 66
>
> 16 points if you count 'em all, 14 if you "86" N0RZ can't read my
> handwriting to determine NR.
>
> 20m was noisy, S5 static and had deep slow QSB, K4FB faded in and
> out many times before I could log him.
>
> 40m was pretty good until my CQ Freq got creamed by a digi/RTTY
> station. Heard AA1MY but didn't work him. Got a call from a W6 but
> couldn't log it (Digi/RTTY QRM). Not bad, coast to coast on 40m, with
> a low _compromise_ antenna!
>
> Lots of fun, hope this will be an annual event, thanks Paul & Doug for
> pulling things together.
>
> 73, Rod N0RC
> Ft Collins, CO

Not much here either. Just K4FB. Called K5DI and N0RC but no
answer. All on 20.

However I did CQ PAC for quite awhile on 30, and got
answered
anyway by US0GA, and got HB0/HA4XG/P.

You sure you guys were listening? ;-)

Frank
AB2KT

Date: Sat, 20 Oct 2001 10:39:35 -0400
From: John Zaruba Jr <jzaruba@snip.net>
To: <qrp-l@lehigh.edu>
Subject: [109127] FS: LDG AT-11MP
Message-ID: <B7F704E7.865%jzaruba@snip.net>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

For Sale:

LDG Electronics AT-11MP Automatic Antenna Tuner (Factory Assembled)

Works great, has dual needle SWR/Power meter. After much consideration, I have decided that I'm going to stay 100% QRP, so I'm selling the tuner to fund the purchase of an LDG Z-11 QRP Tuner. \$150 for my tuner, or swap for a Z-11.

Cashier's Check, Money Order, or PayPal cheerfully accepted.

Please contact me off list if you're interested.

72/3,

John AA2BN

Date: Sat, 20 Oct 2001 10:44:34 -0400
From: "Richard Brummer, K2JQ" <k2jq@bestweb.net>
To: <brickle@pobox.com>,
"Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Subject: [109128] Re: Pacificon QSP Party Log
Message-ID: <00b701c15975\$bcf800e0\$6d01b3d8@obvious>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Well, they weren't listening on 30. I believe the message said "non - WARC" bands.

73,

Dick K2JQ

-----Original Message-----

From: brickle <brickle@pobox.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Date: Saturday, October 20, 2001 10:32 AM
Subject: Re: Pacificon QSP Party Log

>However I did CQ PAC for quite awhile on 30, and got
>answered
>anyway by US0GA, and got HB0/HA4XG/P.
>
>You sure you guys were listening? ;-)

Date: Sat, 20 Oct 2001 11:08:10 -0400
From: brickle <brickle@pobox.com>
To: qrp-1@lehigh.edu
Subject: [109129] Re: Pacificon QSP Party Log
Message-ID: <3BD1935A.2EC39820@pobox.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Rod N0RC wrote:

> I wouldn't expect call back here. This activity fits the definition of
> a "contest" and there is no contesting on 30m. Or any of the WARC
> bands for that matter.

Of course. My bad. What happens when you breeze over an
announcement
at the last minute.

Never made Ukraine QRP before, though :-)

(Blushing)
Frank
AB2KT

Date: Sat, 20 Oct 2001 11:02:52 -0400
From: John Zaruba Jr <jzaruba@snip.net>
To: Low Power Amateur Radio Discussion <qrp-1@lehigh.edu>
Subject: [109130] Re: FS: LDG AT-11MP
Message-ID: <B7F70A5C.86D%jzaruba@snip.net>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

The tuner has been spoken for, thanks...

72/3 de John AA2BN

Date: Sat, 20 Oct 2001 11:34:01 -0400
From: Bruce Muscolino <w6toy@erols.com>
To: aa5tb@arrl.net
Cc: Low Power Amateur Radio Discussion <qrp-1@lehigh.edu>

Subject: [109131] Re: DX with Mediocre Antenna
Message-ID: <3BD19969.379D8F80@erols.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Every antenna is a mediocre antenna! Even the best thought out installations end up being compromises. The trick is to optimize what you have! I have related the story of my condo antenna too many times on this list for you not to understand that it is what you make of it, not what you make it of!

My mother lived in a condo here in Silver Spring, Maryland, I lived in Los Angeles. We both had the same restrictions, NO ANTENNAS! I would come home twice each year for a vacation. I wanted to operate on HF, so I set about considering how to do it!

I came up with a simple end fed long wire made from #26 magnet wire. I would shoot this out of the bedroom window where I was staying, into a nearby tree. It averaged about 40 feet long. It was short enough that it required some effort to load on all bands, especially 80, but it did and it was a success!

I used this antenna for 18 years, 15 of them while on vacation and the final three while living there! I worked DXCC and WAS twice with the antenna, once using QRO and once using QRP.

Was it the perfect antenna? NO. Did it work for what I wanted it to? YES! It had downsides, like having to be replaced about every three weeks because the weather would blow it down. I worried I would get caught, but I didn't. It satisfied my needs! I wrote up a description of the antenna in QST for June 1985,

In Los Angeles I used the helical dipole I had designed while living in Holland to get on HF. Not too bad, I didn't work any awards, but I did manage both Europe and Laos while there! It was hanging from the closet in my bedroom!

73

Date: Sat, 20 Oct 2001 09:50:03 -0600
From: "Steve/n0tu" <n0tu@webaccess.net>
To: "QRP-L" <QRP-L@lehigh.edu>
Subject: [109132] My PA is toast?
Message-ID: <00b301c1597e\$e2b74ee0\$6a211d82@cos.agilent.com>
MIME-Version: 1.0

Content-Type: text/plain;
charset="Windows-1252"
Content-Transfer-Encoding: 7bit

How does one determine if you if at PA transistor is bad? It's a 2n3553 (NPN) and I'm measuring about 200 ohms across C to E . Shouldn't this be infinite or something very high in ohms? It's in circuit and I could be seeing the C to B resistance as well ...but 200 ohms says it's toast? ...right?

Ok! so I reversed polarized it with 12 vdc. But it was only for a second? Darn little HB rig has been silent ever since! ;-) The voltage reg protected the rx ok but the TX I think acted as a nice fuse at the expense of the PA and maybe the driver as wellwhich is open circuit on the ohm meter?

Steve/n0tu

Date: Sat, 20 Oct 2001 12:05:46 -0400 (EDT)
From: George Gingell <k3tks@u1.abs.net>
To: Roy Walker <g0tak@thersgb.net>
Subject: [109133] Re: [GQRP] Let's Design a Radio
Message-ID: <Pine.BSF.4.33.0110201145110.41984-100000@u1.abs.net>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi Roy,

Sounds like a Nice Radio, Although a Bit too much power for my liking or needs.

We are very fortunate in these days to have several good offerings to choose from when it comes to QRP Transceivers.

A multitude of wonderful Single band rigs from both sides of the pond.

In fact I got an email announcement that I believe will interest those on this list as well.

I shall follow this with a forwarding of the announcement.

Due to financial reasons, I have had to sell several of my QRP Rigs this Summer. My K2 Kit, QRP+, Argonaut 515, 405 Linear Amp. and P.S., and a few lesser odds and ends.

No, I am not quitting the hobby, and Yes, I will miss them All. Every single one was a GOOD RIG, each had their own strengths and weaknesses.

I have already decided on the next rig here for me will be an Elecraft K1, with 40,20,30,15 on it. Maybe an extra Module for 80,17. Later. And of Course the AUTO ATU.

I recently visited the new owner of my K2 Kit, and had the occasion to play with the K1. Really good sounds. Can you tell I like CW?

The bottom line to all of this, is that you can have most of what you want with an available product TODAY. Take a look at Elecraft.

<<http://www.elecraft.com>>

No, I don't have an interest in the company. I would buy some stock, if it was offered. :^}

Sir George, The First :^}

72 ES

QRP DX TU (C) 1986, G. "Danny" Gingell, K3TKS@ abs.net
Former QRP A.R.C.I. Net Manager and Board of Director Member.
Gingell & Company, Ltd. Small Business Telephone Systems
Commercial Locksmith Services (301) 572-6789 Office & Fax
George D. Gingell, Jr. 3052 Fairland Road, Silver Spring, MD 20904-7117
Maryland Milliwatt Club QRP Reference Library, (301) 572-6789 IQRR #1
Maryland Milliwatt Club Founder and Trustee of Club Station - WQ3RP -
Grid Square FM19mb 76.94 W - 39.06 N Silver Spring, MD 20904 QRPea.A.

Collector of Quartz Crystals and Telegraph Keys.

"72" = "Wishing You Good QRP" (C) 1991 Oleg Borodin, RV3GM

Date: Sat, 20 Oct 2001 12:12:12 -0400
From: "John Dorson" <jdorson@Worldshare.net>
To: <n0tu@webaccess.net>,
"Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [109134] Re: My PA is toast?

Message-ID: <006d01c15981\$fe0861e0\$377dd13f@atwork>
MIME-Version: 1.0
Content-Type: text/plain;
charset="Windows-1252"
Content-Transfer-Encoding: 7bit

A second is a very long, long time regarding electronics. I suggest you remove the final and re-check. Sounds like you may have fried it.

John K2JHU..

----- Original Message -----

From: "Steve/n0tu" <n0tu@webaccess.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Sent: Saturday, October 20, 2001 11:50 AM
Subject: My PA is toast?

> How does one determine if you if at PA transistor is bad? It's a 2n3553
> (NPN)and I'm measuring about 200 ohms across C to E . Shouldn't this be
> infinite or something very high in ohms? It's in circuit and I could be
> seeing the C to B resistance as well ...but 200 ohms says it's toast? ...
> right?
>
> Ok! so I reversed polarized it with 12 vdc. But it was only for a second?
> Darn little HB rig has been silent ever since! ;-) The voltage reg
> protected the rx ok but the TX I think acted as a nice fuse at the expense
> of the PA and maybe the driver as wellwhich is open circuit on the
ohm
> meter?
>
> Steve/n0tu
>

Date: Sat, 20 Oct 2001 10:13:31 -0600 (MDT)
From: "Karl F. Larsen" <k5di@zianet.com>
To: Steve/n0tu <n0tu@webaccess.net>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [109135] Re: My PA is toast?
Message-ID: <Pine.LNX.4.33.0110201010320.2279-100000@cannac.fun>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Since you reverse polerity tested the rig, I expect you better buy both a final and driver transistor and maybe the receiver voltage regulator. Then

put in a circuit that assures you blow a fuse if the voltage is reversed.

On Sat, 20 Oct 2001, Steve/n0tu wrote:

> How does one determine if you if at PA transistor is bad? It's a 2n3553
> (NPN)and I'm measuring about 200 ohms across C to E . Shouldn't this be
> infinite or something very high in ohms? It's in circuit and I could be
> seeing the C to B resistance as well ...but 200 ohms says it's toast? ...
> right?
>
> Ok! so I reversed polarized it with 12 vdc. But it was only for a second?
> Darn little HB rig has been silent ever since! ;-) The voltage reg
> protected the rx ok but the TX I think acted as a nice fuse at the expense
> of the PA and maybe the driver as wellwhich is open circuit on the ohm
> meter?
>
> Steve/n0tu
>
>

--

Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -
<http://www.qsl.net/k5di/>

Date: Sat, 20 Oct 2001 11:30:46 -0500
From: Nick Kennedy <nkennedy@tcainternet.com>
To: "Low Power Amateur Radio Discussion (E-mail)" <qrp-1@Lehigh.EDU>
Subject: [109136] Record 80 meter tuna caught off shores of Ft. Smith
Message-ID: <01C1595A.A9FF63E0.nkennedy@tcainternet.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Content-Transfer-Encoding: 7bit

When our club decided to build some Ft. Smith tuna-tins as a group project, I couldn't resist getting in on it. But I already have a TT-2 on 40, so I decided to convert to another band. Since winter is coming, and the only QRP crystal I have is for 80, I decided that would be the band.

A few guys asked how I would approach making the change, so I'm going to describe it below.

Generally, it's those frequency sensitive L's and C's that have to change. And the simplified approach is to use the ratio of the old frequency to

the new frequency as a multiplier. So take 7 MHz divided by 3.5 MHz, times the values of C and L. That keeps their reactance the same as the band changes. This is called frequency scaling. Of course, I used the actual ratio of 7.04/3.579, but just plain two would have worked for most of them.

Like I said, that's the simplified approach. Now some of the capacitors are for bypassing--they're selected to look like a short circuit compared to the component they bypass. That would be all of the 0.01 uF and 0.1 uF capacitors. I left these as-is. Their reactance is still acceptably low on 80 meters. If you wanted to crank 'em up to 0.02 and 0.2 uF, that would be OK. You could do a reasonableness check by calculating the reactance of these components. So 0.01 and 0.1 uF are 2.2 and 0.2 ohms reactance respectively on 40 meters. On 80, they'd be twice that. So look at some of the resistances they bypass: 220 and 100 ohms bypassed by 0.01uF, and 56 ohms bypassed by 0.1 uF. So the reactances at 80 meters are still small with respect to those resistances. I didn't change 'em.

Now look at the components between the oscillator and amplifier. C2 (100 pf) is part of the oscillator feedback network, per Doug Demaw. The oscillator would probably be fine with no change here, but I figure when in doubt, keep the same reactance. So I doubled the capacitance. Now 200 pF isn't exactly a standard value, so I'd go with 180 pF or 220 pF, whatever's in the drawer.

L1 is just a choke, shunt feeding DC to the oscillator. Again, when in doubt, use the ratio thing. Now one handy thing to recall about toroids is that the inductance is proportional to the square of the number of turns.

This one has 7 turns. Seven squared is 49. It doesn't take a whole lot of head scratching to come up with the fact that ten squared is 100, almost exactly twice 49. So I just bumped up the turns count from 7 to 10 to double the inductance of L1.

C4 at 220 pF couples the oscillator to the base of the amplifier. Again using the "when in doubt" rule, I doubled it. Since 440 pF isn't a standard value, I used 470 pF.

Moving further to the right, the next component is T1. We didn't talk about transformers. This one just transforms the 50 ohm load resistance to the desired resistance for the amplifier. This ratio actually sets approximately how much power you'll get from the amplifier. I don't want to change that, so I won't change the ratio. But is the transformer broadband enough to work on 80? Probably is, but let me see if I can tweak it a little. The primary has 10 turns and the secondary has 5. I can change those to 14 and 7. That will keep the ratio at 2:1, so I won't mess up the impedance transformation. But now the inductances of primary and secondary are now almost exactly twice what they were before, per the turns-squared rule. So the reactances of the windings on 80 will be the

same as the were on 40. So I made that change. (One rule on transformers is for the reactance of the windings to be large compared with the connected load. That's why I chose not to let it drop as frequency dropped.)

Next comes the output filter. Things get a little trickier in filters and resonant circuits. Previously, keeping approximately the same value of reactance was OK. Here you might need to be a little more careful. There are several ways to go. One is to use the scaling technique described earlier. But resulting values might be hard to match with standard components. Another might be to select (or design) a lowpass filter from ARRL handbook tables. Or you could try the scaling technique, substituting standard values and verifying the results. I use a circuit analysis program called Electronic Workbench. There are many others that would work as well. Alternately, you could breadboard the filter, hook a 50 ohm resistor to the output and shoot through it with your MFJ-259B. Or your QRP rig and SWR meter. That might not tell you the attenuation at harmonics, but it would at least insure negligible insertion loss at the desired frequency. Near 1:1 SWR means things should be OK.

I did my cut-and-try with Electronic Workbench. This is a T37-6 core with 17 turns on it. Using standard numbers and formulas from the handbook or Amidon, that's 0.867 uH. That scales up to 1.71 uH. Calculating back the other direction gives almost exactly 24 turns required for the 80 meter version. But I did something a little compulsive--I notice that the type 6 (yellow) cores are said to be for 3 to 50 MHz--which is OK, but the type 2 (red) ones are good for 1 to 30 MHz. So 80 is a bit more well-centered in the type 2 core's range. So I swapped to a red core since I have lot's of 'em in my junk box. But don't special order one--the yellow should do fine. With all my trial and error work, I finally came up with a value of 1.6 uH, using 20 turns on the T37-2 core. (That's one more nice thing about electronic simulation--you can do "sensitivity checks" to see if it really matters much whether you the exact value or one that's merely close.)

Going through similar measures, I came up with a value of 768 pF (I actually had one in my junk box!) for C6 and 910 pF (but 1000 pf or 0.001 uF would have worked OK) for C7.

Whew! Takes longer to describe it than to do it. Finally, that cap across the backbone of the filter--C11. You'll see this in some designs but not in others. It forms a parallel resonant circuit with L2 to give extra attenuation on the 2nd harmonic. I was surprised when I first saw this--surprised you could do something so simple and not mess up the performance of the filter in other respects. But it works. I'd select C11 rather carefully to make sure it resonates L2 at exactly twice your operating frequency. I used a value of 330 pF. It won't hurt things much if you're off here, you just won't get the maximum value out of this extra

feature.

I was amazed and gratified when I powered the thing up and it looked fine right off the bat--nice clean sine wave and about 700 mW output.

I wired up my can with the two UHF connectors and the toggle switch T/R switch (hey--just like back in 1962). I also put a 1/4 phone jack in the can for my key and a coaxial type power connector from radio shack.

Then I did the "chirp elimination mod". But that's not what I'd call it.

My 40 meter TT2 didn't chirp that badly. But I didn't like the fact that both sides of the key had to be insulated from ground in the basic design.

I wanted to use my keyer but didn't want to have to worry about whether it's case touches ground. With the modification, the shell side of the keying connector is at ground just like on any other rig. On my TT2/40--I did this mod manhattan style on the back side of the board. But I'd misplaced my super glue while doing the TT2/80, so I did the mod "islander style", using that island cutter sold by the NJ group. It worked fine.

Those islands are kinda teeny, but I managed so solder four leads to one.

I still haven't described the toughest component choice I had to make. My wife saved me two cans--a BumbleBee and a Chicken of the Sea. But on close inspection, the CotS wins hands down. It's got that pretty little blonde mermaid. She's stirring the ionosphere with what looks like a quarter wave monopole. You can see the positive ions swirling. Remove the label carefully before doing the metal work. Then cut out the mermaid and glue her back on. Also, I cut out the tiny "dolphin safe" sticker and stuck it on the board, so my environmentally conscious kids would know that no friendly creatures were harmed in the making of this transmitter.

I always skip through equipment reviews to get to the on-the-air description at the end. Well folks, there's hardly anybody that's moved down to 80 meters yet. It's still too early in the low-QRN months of fall/winter I guess. I pounded the brass in vain yesterday and last night and finally sent an email to milliwatt-king Jim, KJ5FT. He agreed to listen for me this morning as soon as he could get a cuppa coffee. We had a good QS0. Jim had to go QR0 (2 watts!) to overcome my noise, but the QS0 is much appreciated. Jim is trying to scare me up a 3560 crystal for the AR QRP net, but I'm thinking I may try to build a VFO for this thing. Or else I'll just QRP the FT-1000.

Now, so you'll never have to wade through all that mess again, let me summarize the component changes necessary to build the TT2/80:

| Component | Old | New |
|-----------|---------|-------------|
| C2 | 100p | 180 to 220p |
| L1 | 7 turns | 10 turns |
| C4 | 220p | 430 to 270p |

| | | |
|----|---------|---------------------|
| T1 | 10T/5T | 14T/7T |
| L2 | 17turns | 24 turns OR ... |
| L2 | T37-6 | T37-2 with 20 turns |
| C6 | 390p | 768p or thereabouts |
| C7 | 470p | 910p or 1000p |

Unchanged--all resistors, C1, C3, C5, C8, C10, C9

Oh yeah, a couple more handy things for homebrewers. Those calculated values for toroids are kinda ballpark ... usually OK, but sometimes you need to get close. The AADE L/C Meter IIB is sure handy when you want to get close to a critical value. I think I ended up adjusting my L2 by one turn ...

Another thing that's handy is a spreadsheet set up to automate calculations of resonant frequency, reactance, toroid turns and a bunch of other stuff that you use a lot. It's good to make your own, adding stuff as you encounter and learn about it. But if you want mine, let me know. Requires Excel 97 or later.

Hey Doug--if I can shrink this to a page, can it be my article?

72 & see you on 80--

Nick, WA5BDU

Date: Sat, 20 Oct 2001 13:06:21 -0700
 From: Daryl Cline <wb4yex@yahoo.com>
 To: ATRAIL-L@Lehigh.EDU, HamRadio_Mountaintopping@yahoogroups.com,
 qrp-l@Lehigh.EDU, qrp-l@qth.net
 Subject: [109137] AT in Va
 Message-ID: <4.3.2.7.0.20011020124555.00b48dd0@pop.mail.yahoo.com>
 Mime-Version: 1.0
 Content-Type: text/plain; charset="us-ascii"; format=flowed

Well today was a waste of time. The fricking Shenandoah National Park wanted to charge me \$5.00 to hike in on the AT as if the Fed doesn't steal enough from me already. . I spent my last 5 bucks on breakfast on the way up. I set up at swiftrun gap where the AT crosses the Highway . I had redone my antenna deployment system for tall Hemlock trees with bare branches. Not the Maples I wound up using. I got my one antenna snagged in the leaves. It took me a half hour to get it out when I left. I did make a trail to trail contact on 40 with KC4D even though everyone in the country was trying to use the same freq. Then a freak'n PSK31 station barged onto 7040 and sat there and I could hear nothing but him. He was so strong I

think that he burned out the front end of my receiver. :-)
20 meters was so packed I couldn't find a clear spot anywhere close to 14060. My dog got restless in the truck because he wanted to run on the trail and I discovered the oil leak in the valve cover gasket which the garage was supposed to fix was still leaking (smoke coming from under the hood is a good indication). I said to heck with it and came back to town. SO obviously I will not be on the air anymore today from the AT as scheduled. Sorry. Actually my every other weekend on the AT will probably be reduced to once a month when I either hike in from the boonies at the bottom of the mountain or get south of the SNP to the Blue Ridge parkway which doesn't charge and is about an hour's drive. It is also much prettier than the SNP. Well I am off to ride my bike to Wally World to get some new reading glasses to replace the ones which I sat on and broke in the truck just before calling it quits. If I don't get hit by a car on the way I'll spend the rest of the day with the JAARTS RTTY Contest. I should have stayed in bed this morning. GEEESH some days you can't win for losing.

Daryl Cline WB4YEX FPQRP # 322 ARS #632 SOC #449
Harrisonburg, Va.

<http://www.cfw.com/~jdc>

"When I found the skull near camp, the first thing I did was call the police. But then I got curious I picked it up and started wondering. Who was this person ? and why did he have goat horns ?

Date: Sat, 20 Oct 2001 12:32:21 -0500
From: Wayne Rogers <w5kdj@juno.com>
To: qrp-l@lehigh.edu
Subject: [109138] New 4 Band K1 Early Notification
Message-ID: <20011020.123222.-655611.3.w5kdj@juno.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Dear Soon to be K1 Owner!

We are sending you this email today to notify you of an exciting new development in the K1 Kits!

Tonight, October 19th we are announcing the release of the new K1-4 K1 transceiver with a 4-BAND MODULE. Because you have a K1 or KFL1 on order, you are one of the first to be notified of the new K1-4.

We are giving you the first opportunity to receive this great new product.

The K1-4 offers up to four bands on a single plug-in module.

The 4-band plug-in module covers 40, 30, 20, and either 17 or 15 meters . Components for all five bands are included in your kit and you can choose either the 17 or 15 meter bands when you are building.

If you aren't sure right now that you want the 4 bands, you can upgrade to the 4-band module (KFL1-4) at any time, or build additional 2-band modules (KFL1-2).

Pricing for the K1-4 is an economical \$349.00 You get the same great features of the K1- compact, light weight low power- but with the added feature of four bands.

To upgrade the K1-2 at a later time, the KFL1-4 upgrade 4-band module is only \$129.00.

Please email me at your earliest convenience and let me know if you are interested in changing your order to the K1-4 or if you want to have us ship the K1-2 (K1 transceiver with 2-band module) as ordered. Both are available for shipping immediately.

Thank you for choosing Elecraft products and we hope you will find this new product as exciting as we do.

I look forward to hearing from you soon!

73,
Lisa Jones

Elecraft Sales
PO BOX 69, Aptos, CA 95001-0069

Date: Sat, 20 Oct 2001 11:38:43 -0600
From: "Steve/n0tu" <n0tu@webaccess.net>
To: "QRP-L" <QRP-L@lehigh.edu>
Subject: [109139] Re: My PA is toast?

Message-ID: <00d401c1598e\$113998e0\$6a211d82@cos.agilent.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="Windows-1252"
Content-Transfer-Encoding: 7bit

Nah! ...No reverse protection for me!!

I prefer replacing finals and volt regs and digging into the bowls of my rigs ...It keeps me familiar with how it works!

Now if I only I could train the operator as to knowing which is positive and which is negative I would solve the real problem. ;-)

Hey I found a 2n5109 which looks like a replacement for the 2n3553 I think?
Thanks for the replys/info guys I'll have this playing again before long!
Steve/n0tu

----- Original Message -----

From: "Steve/n0tu" <n0tu@webaccess.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Sent: Saturday, October 20, 2001 9:50 AM
Subject: My PA is toast?

> How does one determine if you if at PA transistor is bad? It's a 2n3553
> (NPN)and I'm measuring about 200 ohms across C to E . Shouldn't this be
> infinite or something very high in ohms? It's in circuit and I could be
> seeing the C to B resistance as well ...but 200 ohms says it's toast? ...
> right?
>
> Ok! so I reversed polarized it with 12 vdc. But it was only for a second?
> Darn little HB rig has been silent ever since! ;-) The voltage reg
> protected the rx ok but the TX I think acted as a nice fuse at the expense
> of the PA and maybe the driver as wellwhich is open circuit on the
ohm
> meter?
>
> Steve/n0tu
>
>

Date: Sat, 20 Oct 2001 14:36:29 -0400
From: "John L. \"Jake\" Carter" <jakecart@ix.netcom.com>

To: "Qrp-L" <qrp-l@Lehigh.EDU>, <lourette@localnet.com>
Subject: [109140] RE: Receiver design (home brew) recommendation?
Message-ID: <GCECIJFJPOHMCKACOA0BKEAGCPAA.jakecart@ix.netcom.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="us-ascii"
Content-Transfer-Encoding: 7bit

Rich -- AB2MD:

Here's some info on Direct Conversion receivers you can build. I use mine,
and my scratch-built Tuna Tin, as my everyday station.

I built a couple Neophytes -- one from scratch, Manhattan-style and one
using the FAR Circuits printed board. My scratch-built Neophyte is at
<http://sites.netscape.net/jakeycarter/neophyte>

The FAR Circuit board is easier to build and the final product is a lot
smaller. FAR Circuits is at <http://www.cl.ais.net/farcir/receiver1.htm>

The Neophyte QST article is available from the ARRL Technical Information
Service at <http://www.arrl.org/tis/info/pdf/28814.pdf>

If you want to try an inexpensive kit, the Ten Tec "Any Band Receiver" is a
good choice. Its at <http://www.tentec.com/tkit.htm#model1056>

Good Luck,

Jake -- N4UY

Date: Sat, 20 Oct 2001 17:20:29 -0400
From: "Tracy Markham" <tracy@bytemark.com>
To: "QRP-L" <qrp-l@lehigh.edu>, <n0tu@webaccess.net>
Subject: [109141] RE: My PA is toast?
Message-ID: <NFBBKLDHALEHCJMAJPKFIEEACEAA.tracy@bytemark.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="Windows-1252"
Content-Transfer-Encoding: 7bit

I don't know if it replaces it ... but the '5109 is one of my favorite pa's
... I use 'em all over the place. It can take a whippin and still go for it.
Heat sink it well!!

Tracy N4LGH

-----Original Message-----

From: owner-qrp-l@Lehigh.EDU [mailto:owner-qrp-l@Lehigh.EDU] On Behalf Of Steve/n0tu

Sent: Saturday, October 20, 2001 1:39 PM

To: Low Power Amateur Radio Discussion

Subject: Re: My PA is toast?

Nah! ...No reverse protection for me!!

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Now if I only I could train the operator as to knowing which is positive and which is negative I would solve the real problem. ;-)

Hey I found a 2n5109 which looks like a replacement for the 2n3553 I think? Thanks for the replies/info guys I'll have this playing again before long! Steve/n0tu

----- Original Message -----

From: "Steve/n0tu" <n0tu@webaccess.net>

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Sent: Saturday, October 20, 2001 9:50 AM

Subject: My PA is toast?

> How does one determine if you if at PA transistor is bad? It's a 2n3553
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ohm
> meter?
>
> Steve/n0tu
>
>

Date: Sat, 20 Oct 2001 17:36:56 -0400
From: "Jim Stamper" <jstamper@shentel.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [109142] Re: DX with Mediocre Antenna
Message-ID: <003501c159af\$58412de0\$70576fcc@jstamper>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Bruce Muscolino <w6toy@erols.com> wrote:

It satisfied my needs! I wrote up a description
of the antenna in QST for June 1985,

Now that's what they call an OT!

-jim

James H. Stamper
519 Park Avenue
Woodstock, VA 22664
540-459-8350

Date: Sat, 20 Oct 2001 18:17:57 EDT
From: K5KW@aol.com
To: qrp-l@lehigh.edu
Subject: [109143] TT2 Conversion to 80 Meters
Message-ID: <b6.68d2e0.29035215@aol.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Wow, Nick!! That was a great contribution to the list. A clear explanation
of the technique of component scaling that even a non-techno-klutz like me
could follow. Surely ole Doug will pick up on it as an article for his
forthcoming printed collection.
See you at ArkieCon come springtime.

72, es thanks

Don, K5KW

In old Fort Gibson, oldest town in Oklahoma

End of QRP-L Digest 2348
